

## 1. Username & Password Set Up

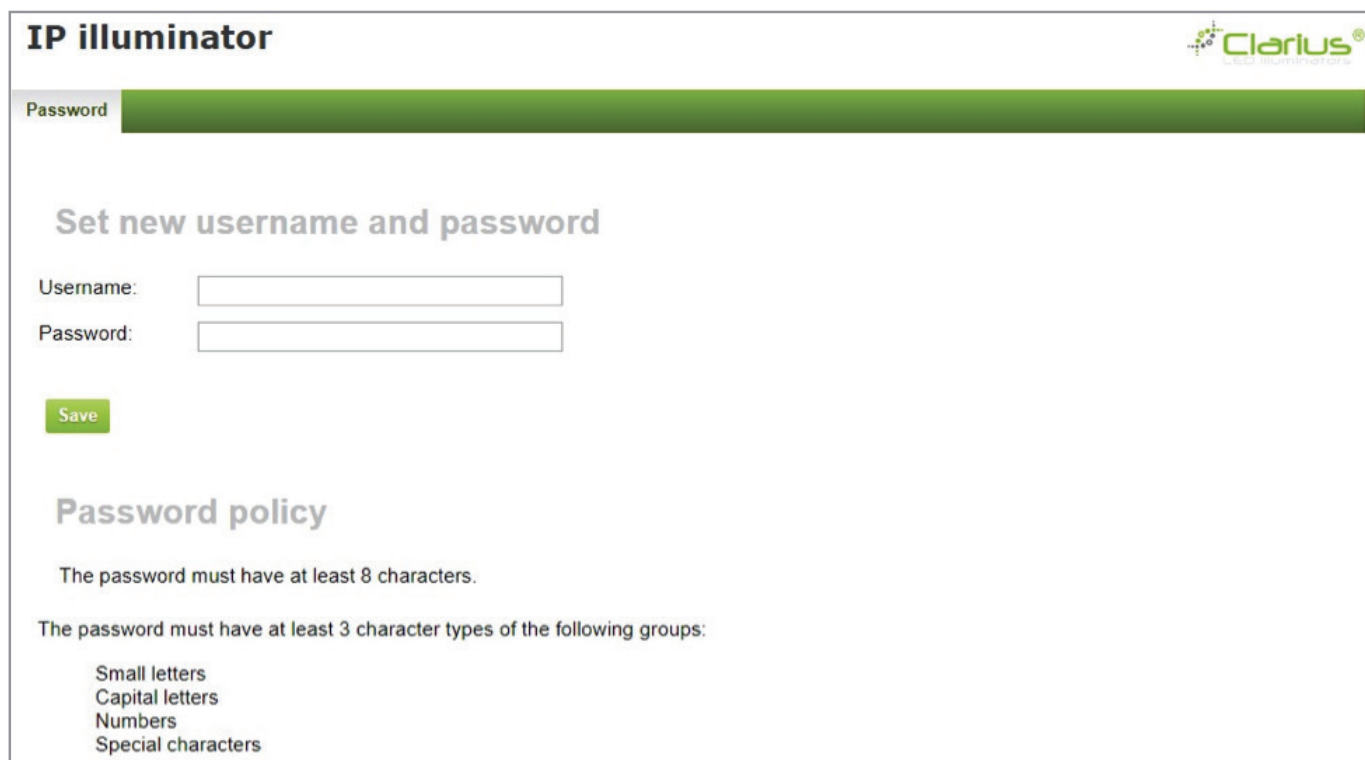
When using the system for the first time, or if a factory reset has been made, the following settings are used:

**Product IP number:** 192.168.0.10

**Subnet mask:** 255.255.255.0

**Default router:** 192.168.0.1

The user must open their web browser and type the illuminator's IP address 192.168.0.10 into the address bar, then press enter to load the user's interface page as shown below:



The screenshot shows a web browser window titled "IP illuminator" with the Clarius logo in the top right corner. Below the title bar is a green header with the word "Password" on the left. The main content area has the heading "Set new username and password". There are two input fields: "Username:" and "Password:". Below these fields is a green "Save" button. Underneath is a section titled "Password policy" with the following text: "The password must have at least 8 characters." and "The password must have at least 3 character types of the following groups:". The groups listed are: "Small letters", "Capital letters", "Numbers", and "Special characters".

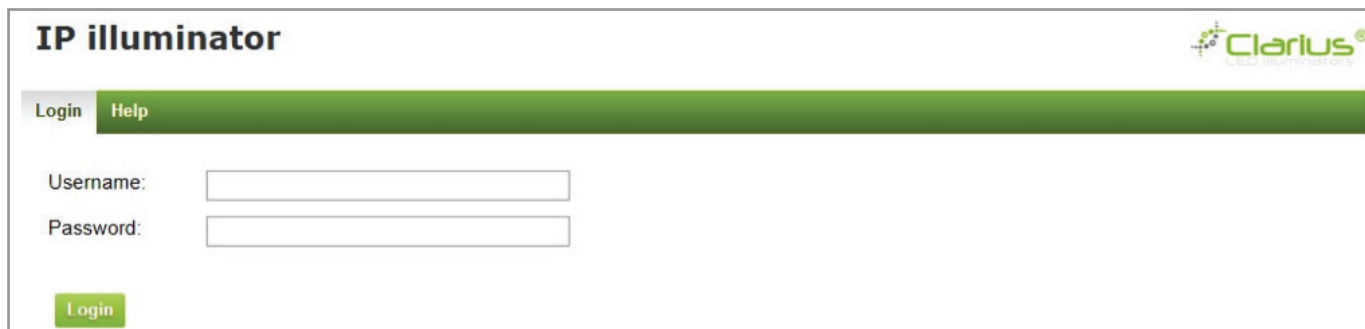
The user will then be prompted to create a username and password based on the password policy.

### Factory reset

1. Make sure the detector is powered on.
2. Hold down the reset button for 8 seconds.
3. Release reset button, the status LED on the board will turn off for a second.
4. The units IP address and login details are now reset back to factory values.

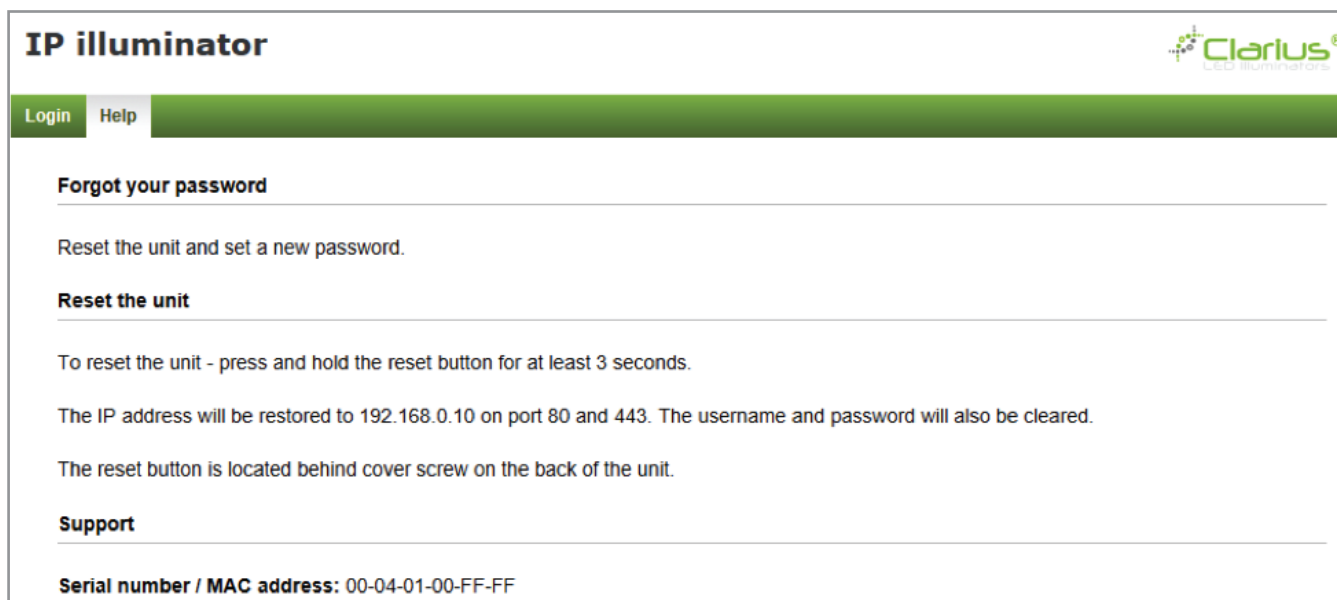
## 2. Login

The next time the user wants to login into the illuminator they must open their web browser and type the illuminator's IP address into the address bar, then press to load the user's interface page as shown below. The user must then enter their username and password that they previously created:



The screenshot shows the 'IP illuminator' login interface. At the top right is the Clarius logo. Below the title is a green navigation bar with 'Login' and 'Help' tabs. The 'Login' tab is active. Below the navigation bar are two input fields: 'Username:' and 'Password:'. At the bottom left is a green 'Login' button.

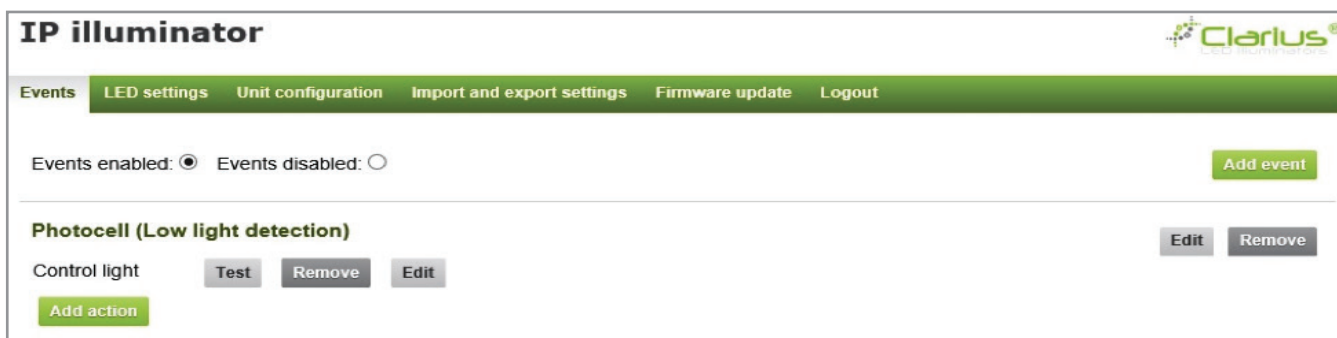
Should the user require help with logging into the illuminator they can select the help tab as shown below and follow the guidance as listed:



The screenshot shows the 'IP illuminator' help page. At the top right is the Clarius logo. Below the title is a green navigation bar with 'Login' and 'Help' tabs. The 'Help' tab is active. Below the navigation bar are three sections: 'Forgot your password', 'Reset the unit', and 'Support'. The 'Forgot your password' section contains the text 'Reset the unit and set a new password.' The 'Reset the unit' section contains the text 'To reset the unit - press and hold the reset button for at least 3 seconds.' and 'The IP address will be restored to 192.168.0.10 on port 80 and 443. The username and password will also be cleared.' The 'Support' section contains the text 'The reset button is located behind cover screw on the back of the unit.' At the bottom is the text 'Serial number / MAC address: 00-04-01-00-FF-FF'.

## 3. Events

Once logged in the user will be taken to the Events tab as shown below. Events are enabled as default; however, the user can disable events.



The screenshot shows the 'IP illuminator' Events page. At the top right is the Clarius logo. Below the title is a green navigation bar with 'Events', 'LED settings', 'Unit configuration', 'Import and export settings', 'Firmware update', and 'Logout' tabs. The 'Events' tab is active. Below the navigation bar are two radio buttons: 'Events enabled: ' and 'Events disabled: '. At the bottom right is a green 'Add event' button. Below this is a section for 'Photocell (Low light detection)' with 'Edit' and 'Remove' buttons. At the bottom left is a green 'Add action' button.

The Photocell (Low light detection) event as shown above is pre-programmed into the illuminator, however, this too can be removed by the user if desired by clicking remove on the right-hand side of the screen.

The purpose of Photocell (Low light detection) function is simple, when darkness occurs the illuminator will automatically turn itself on based on its photocell sensor reading and when brightness occurs again the illuminator will turn itself off.

The Photocell (Low light detection) event can be edited by clicking edit on the right-hand side of the screen and the following pop-up screen will appear:

### Edit event

Name:

Input: **Low light detection** ▼

Delay (s):

Timeout (s):

Lux level (lux):

The delay is set to 2 seconds, timeout is set to 5 seconds and lux level to 15 Lux as default. The user can alter these values to suit and then click save event.

The Photocell (Low light detection) action can be edited by clicking edit on the left-hand side of the screen and the following pop-up screen will appear:

### Edit action

Action type: **Control light** ▼

Start action: **Standard on** ▼

Stop action: **Standard off** ▼

## 4. LED Settings

To set the illuminator's LED power settings the user must select the LED settings tab inside their web browser:

The screenshot shows the 'IP illuminator' web interface. At the top, there is a navigation bar with tabs: 'Events', 'LED settings' (selected), 'Unit configuration', 'Import and export settings', 'Firmware update', and 'Logout'. The 'LED settings' section includes sliders for 'Standard power' (set to 80), 'Energy saving power' (set to 50), and 'Boost power' (set to 100). There are also input fields for 'Boost timeout' (5) and 'Strobe timeout' (5), and a dropdown for 'Strobe type' (Type 1). A 'Factory default' button is located below these settings. On the right, the 'Sensor status' section displays: 'LED status: 0%', 'Ambient light: >100 lux', 'Tampering: Detection armed', 'Temperature: 20 °C', and 'Digital Input: Open circuit'. Below this, there are manual control sections for 'Standard', 'Energy save', 'Boost', and 'Strobe', each with 'ON' and 'OFF' buttons and a lightbulb icon. The 'Digital Output' section has 'Open' and 'Close' buttons and a red indicator light.

The user can simply reset the illuminator's LED settings by clicking the factory default button as shown above.

### Manual Control Standard Function:

The manual control standard function enables the user to be able to turn on/off the illuminator at the given set power value on the slider bar. For example 80% light output as shown below:

The diagram shows a 'Standard power' slider bar with a double-headed arrow pointing to the 80% mark. To the right of the slider is a numeric input field containing '80'. To the right of the slider bar is a 'Standard' control panel with 'ON' and 'OFF' buttons and a lightbulb icon.

### Manual Control Energy Save Function:

The manual control energy save function enables the user to be able to turn on/off the illuminator at the given set energy saving power value on the slider bar. For example 50% light output as shown below:

The diagram shows an 'Energy saving power' slider bar with a double-headed arrow pointing to the 50% mark. To the right of the slider is a numeric input field containing '50'. To the right of the slider bar is an 'Energy save' control panel with 'ON' and 'OFF' buttons and a lightbulb icon.

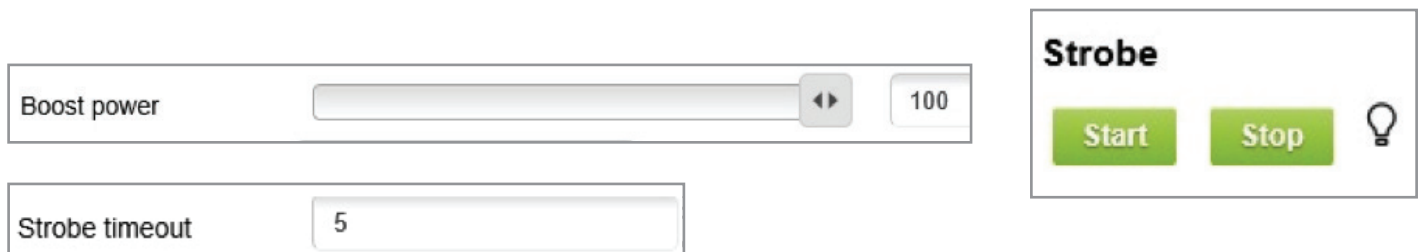
### Manual Control Boost Function:

The manual control boost function enables the user to be able to start/stop the illuminator at the given set boost power value on the slider bar. For example 100% light output as shown below for 5 seconds:



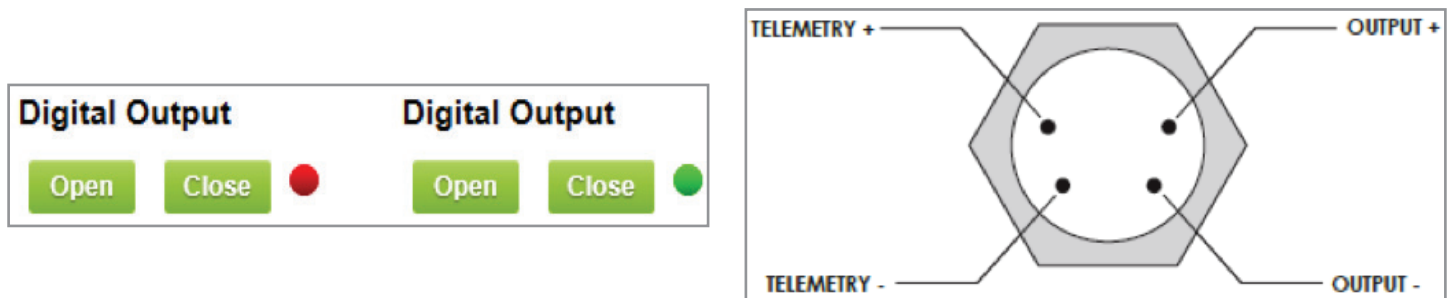
### Manual Control Strobe Function:

The manual control strobe function enables the user to be able to start/stop the flashing of the LEDs at the given set boost power value on the slider bar. For example 100% light output as shown below for 5 seconds:



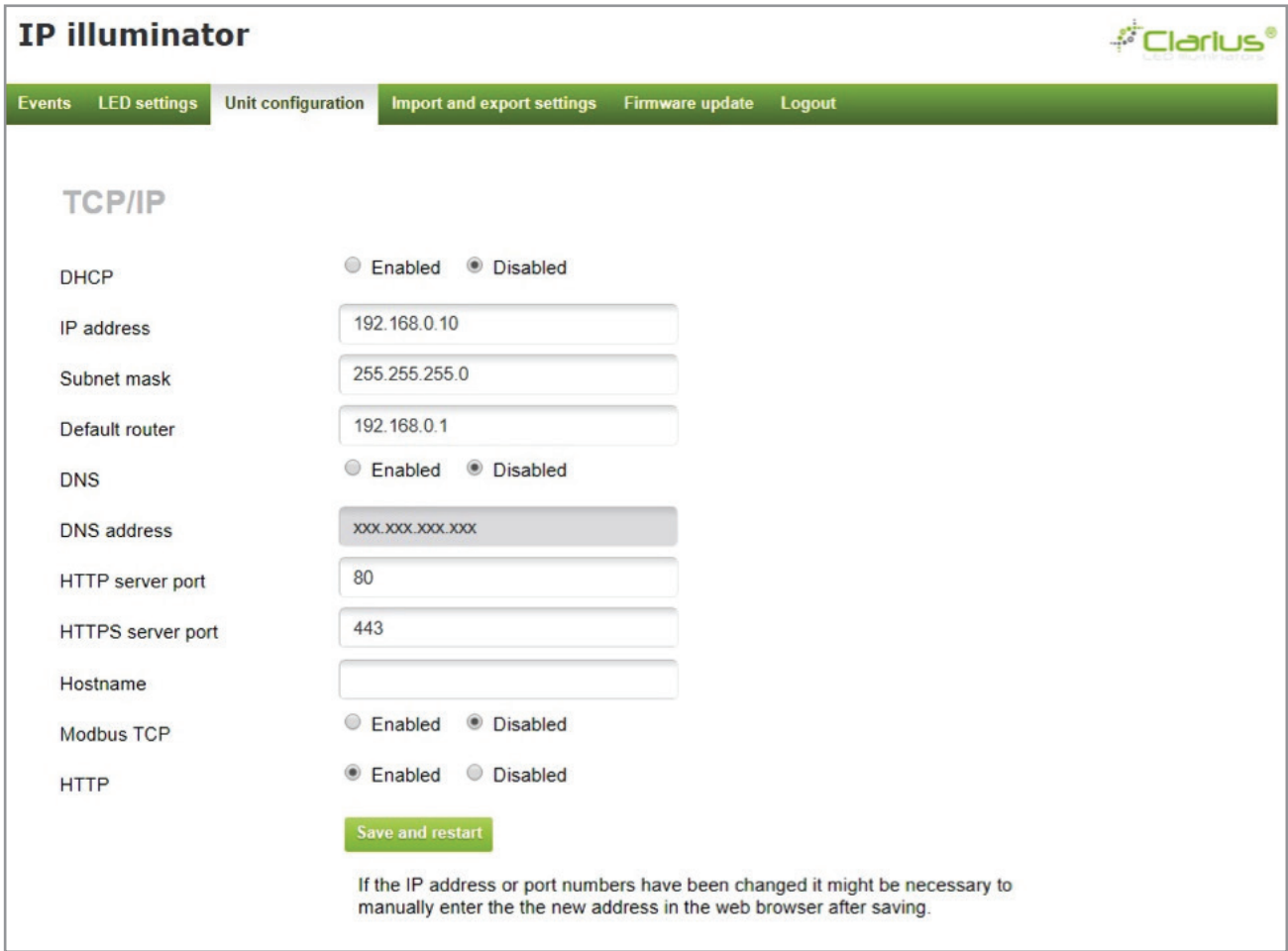
### Manual Control Digital Output Function:

The manual control digital output function enables the user to close the output relay pins together as shown in the pin diagram below. A green circle will appear on the screen to indicate this state. To open the relay again, the user simply clicks open on the screen and the red circuit will appear. Initially the illuminator's output is set to open as default.



## 5. Unit Configuration

To set the illuminator's unit configuration settings the user must select the Unit configuration tab inside their web browser:



**IP illuminator**

Events LED settings **Unit configuration** Import and export settings Firmware update Logout

### TCP/IP

DHCP  Enabled  Disabled

IP address

Subnet mask

Default router

DNS  Enabled  Disabled

DNS address

HTTP server port

HTTPS server port

Hostname

Modbus TCP  Enabled  Disabled

HTTP  Enabled  Disabled

[Save and restart](#)

If the IP address or port numbers have been changed it might be necessary to manually enter the the new address in the web browser after saving.

The Dynamic Host Configuration Protocol (**DHCP**) is set to disabled as default. The user may enable the **DHCP** to assign a dynamic IP address to the illuminator on the network.

The user can manually set the **IP, Subnet Mask & Router** addresses as desired.

The Domain Name System (**DNS**) protocol is set to disabled as default. The user may enable the **DNS** to convert an alphabetic name into a numerical IP address.

The Hypertext Transfer Protocol (**HTTP**) server port is set to 80 as default.

The Hypertext Transfer Protocol Secure (**HTTPS**) server port is set to 443 as default. **HTTPS** allows information between the browser and the illuminator to be sent encrypted.

The Modbus Transmission Control Protocol (**TCP**) is set to disabled as default. The user may enable the **Modbus TCP** to transmit information over serial lines.

The Hypertext Transfer Protocol (**HTTP**) is set to enabled as default.

The user should click **save and restart** for any changes to be implemented.

The user can upload a Transport Layer Security (TLS) certificate and private key in the HTTPS certificates section:



The screenshot shows a section titled "HTTPS certificates". It contains two rows of controls. The first row is for the "TLS Certificate" and includes a green "Select file" button and a grey "Upload" button. The second row is for the "Private key" and also includes a green "Select file" button and a grey "Upload" button. Below these rows are three additional buttons: a green "Load default certificate" button, a green "Restart" button, and a grey button with the text "HTTPS not running. Upload a new certificate and private key."

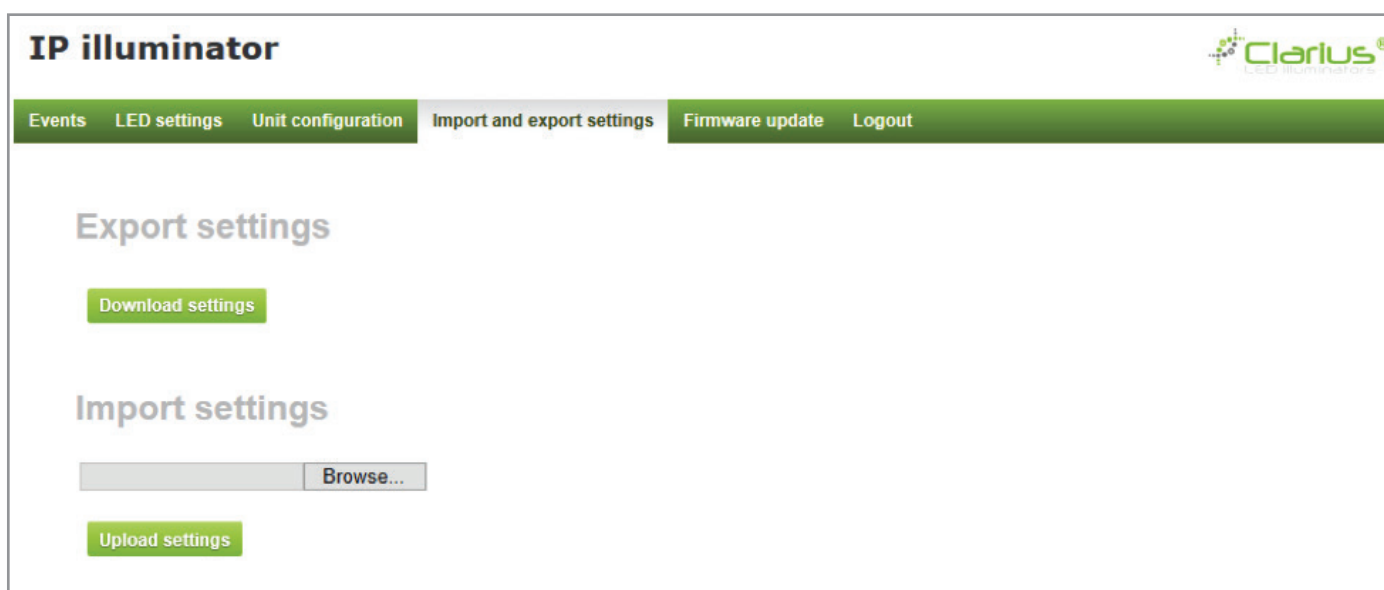
The user can change their password in the login section but not username. To change a username the illuminator must be manually reset using the reset button on the spine of the illuminator.



The screenshot shows a section titled "Login". It contains three input fields: "Username" with the text "test", "Password", and "Confirm password". Below the input fields is a green "Save" button.

## 6. Import and Export Settings

To import and export a given LED illuminator settings the user must select the import and export settings tab inside their web browser:

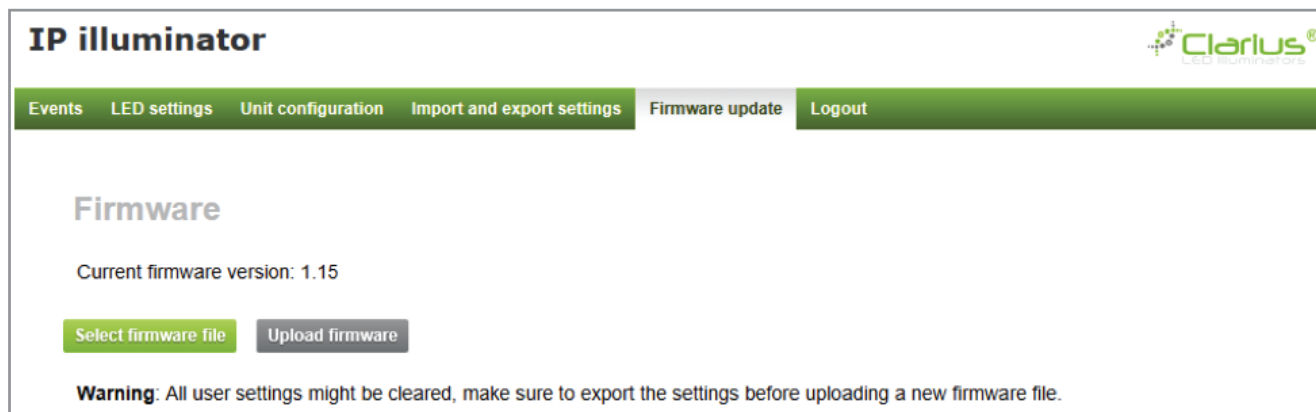


The screenshot shows the "IP illuminator" settings page. At the top right is the "Clarius" logo. Below the logo is a green navigation bar with tabs: "Events", "LED settings", "Unit configuration", "Import and export settings" (which is highlighted), "Firmware update", and "Logout". The main content area is titled "Export settings" and contains a green "Download settings" button. Below this is the "Import settings" section, which includes a grey "Browse..." button and a green "Upload settings" button.

The user can export settings from a given illuminator by clicking on the download settings button as shown above and saving the settings as a CFG file. The user can then import this file into another illuminator by selecting browse next to the import settings section as shown above and then simply click Upload settings.

## 7. Firmware Update

To check the illuminator's current firmware version the user must select the Firmware update tab inside their web browser:



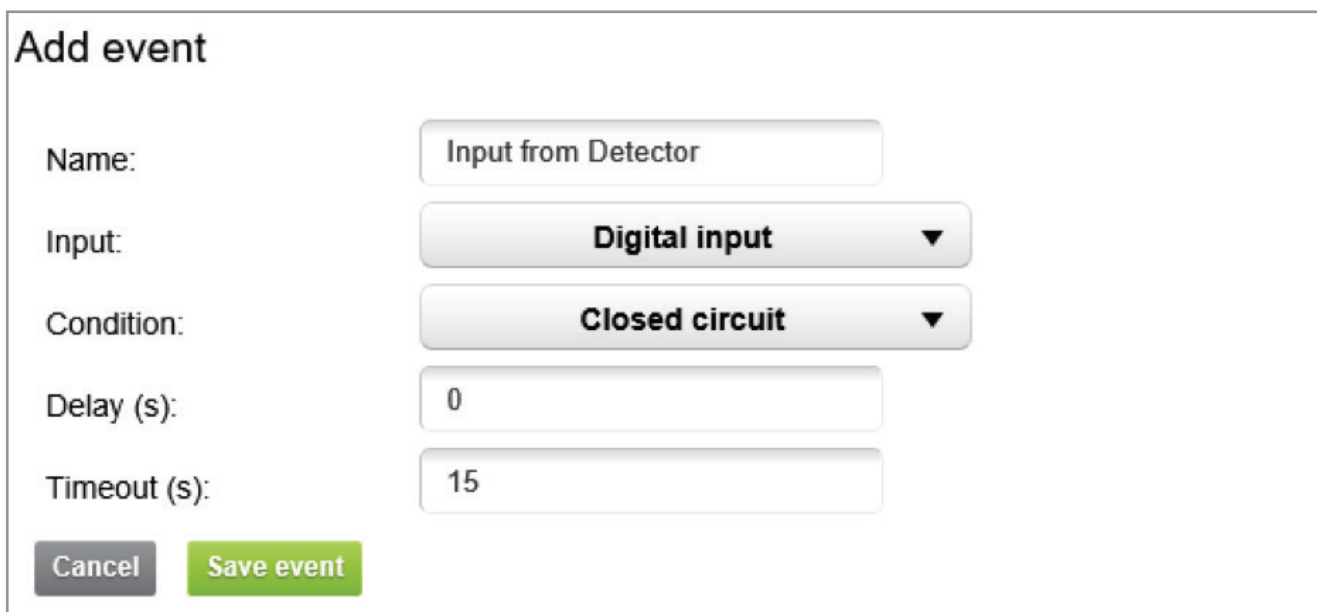
The screenshot shows the 'IP illuminator' web interface. At the top right is the 'Clarius' logo. A navigation bar contains tabs for 'Events', 'LED settings', 'Unit configuration', 'Import and export settings', 'Firmware update', and 'Logout'. The 'Firmware update' tab is active. Below the navigation bar, the page title is 'Firmware'. It displays 'Current firmware version: 1.15'. There are two buttons: 'Select firmware file' (green) and 'Upload firmware' (grey). A warning message states: 'Warning: All user settings might be cleared, make sure to export the settings before uploading a new firmware file.'

If a new firmware version has been issued by GJD the user will need to click on Select firmware file to select the new firmware file and then click on Upload firmware as shown above.

## 8. Event - Example 1 – Input from Detector

If an external detector is connected to the telemetry input of the illuminator the user can then setup an event to be triggered from that input signal. To do this the user must click Add event on the screen and complete the fields as appropriately.

The example below calls the event Input from Detector, the input signal is defined as a Digital input, the condition is Closed circuit which means when the telemetry pins are shorted together the event will be triggered. The delay is set to 0 seconds and the time out is 15 seconds, basically this means the illuminator will be turned on immediately when the digital input signal is received and will remain on for 15 seconds.

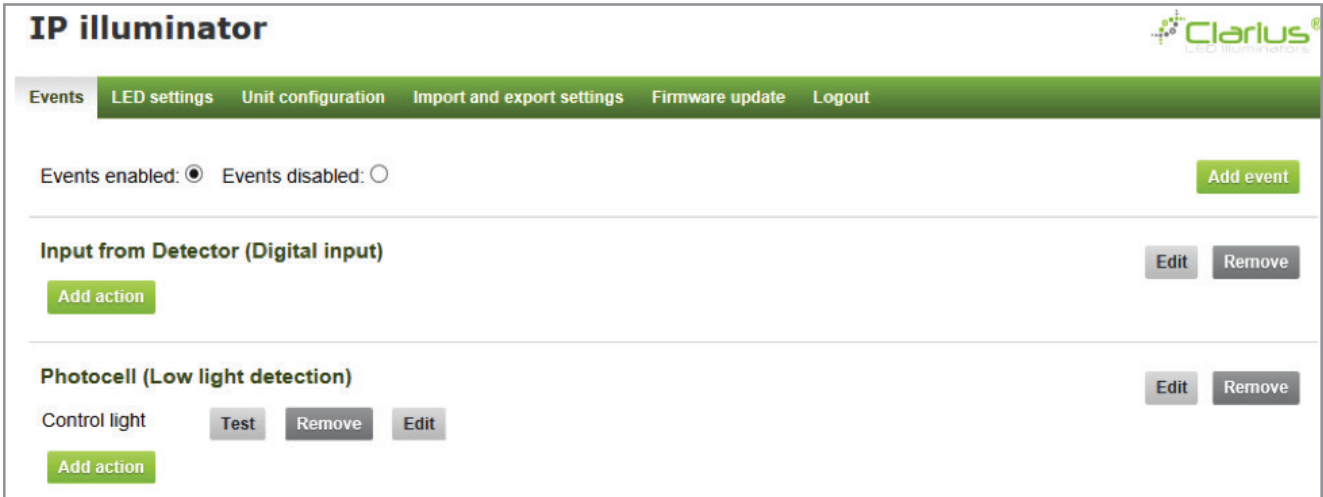


The 'Add event' form contains the following fields and controls:

- Name:** Input from Detector
- Input:** Digital input (dropdown menu)
- Condition:** Closed circuit (dropdown menu)
- Delay (s):** 0
- Timeout (s):** 15
- Buttons:** Cancel (grey), Save event (green)

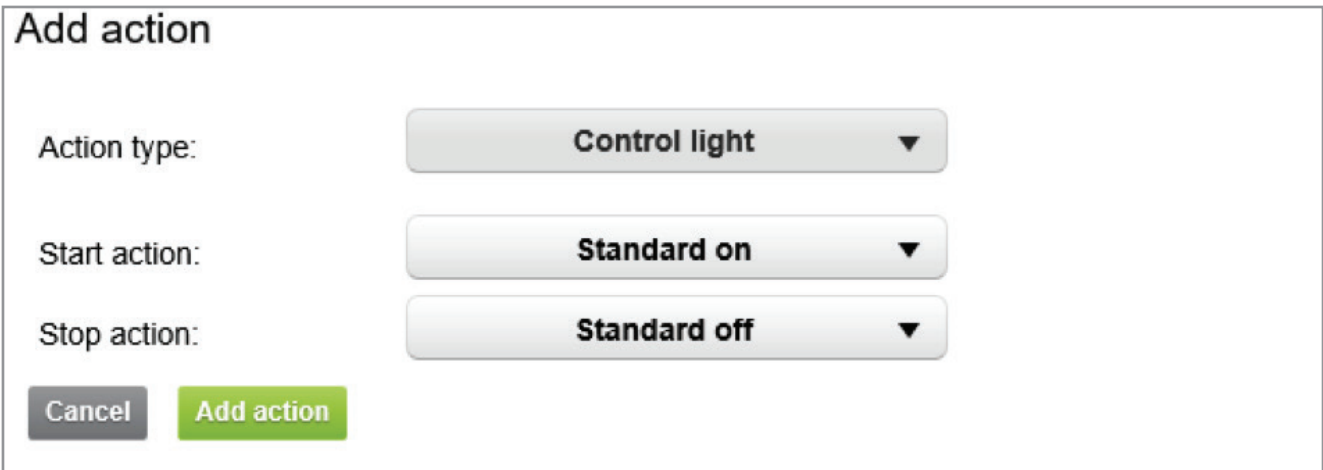


Once the event is saved it will appear as shown below:



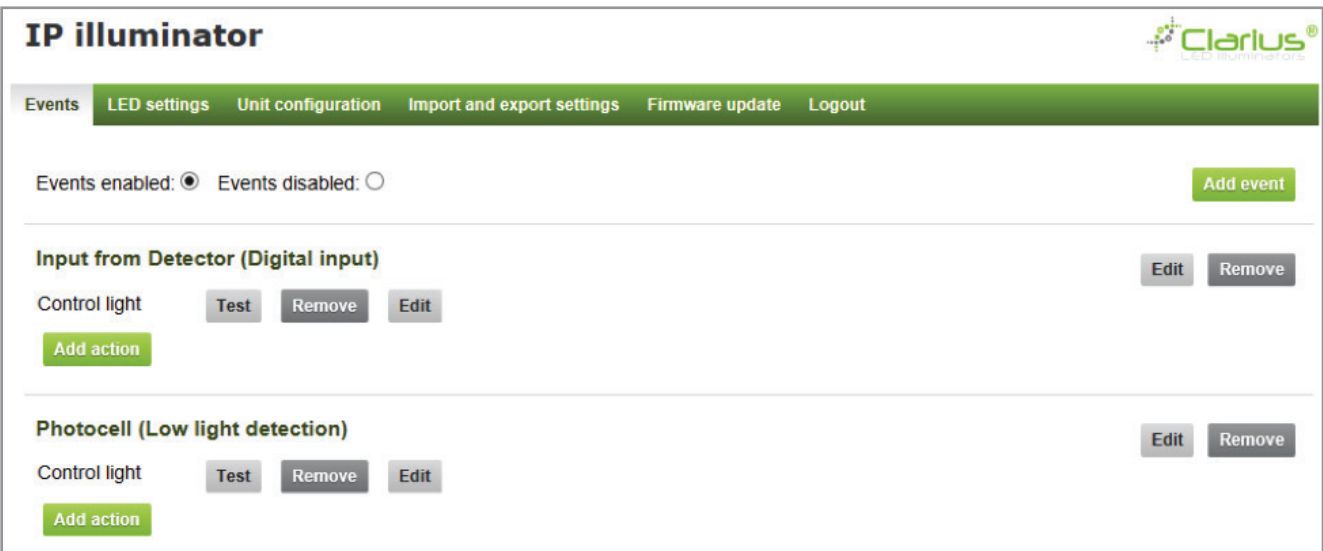
The screenshot shows the 'IP illuminator' control interface. At the top right is the 'Clarius' logo. Below it is a navigation bar with tabs: 'Events', 'LED settings', 'Unit configuration', 'Import and export settings', 'Firmware update', and 'Logout'. The 'Events' tab is active. Below the navigation bar, there are two radio buttons: 'Events enabled: ' and 'Events disabled: '. To the right of these is a green 'Add event' button. Below this is a section titled 'Input from Detector (Digital input)' with 'Edit' and 'Remove' buttons. Underneath is a green 'Add action' button. Below that is a section titled 'Photocell (Low light detection)' with 'Edit' and 'Remove' buttons. Underneath is a 'Control light' label with 'Test', 'Remove', and 'Edit' buttons, and a green 'Add action' button.

The user must then click Add action underneath the input from Detector section. The add action pop-up screen will appear and the user should select Control light for the action type. The start and stop actions should be as shown below:



The screenshot shows the 'Add action' pop-up screen. It has a title 'Add action' at the top left. Below the title are three dropdown menus. The first is labeled 'Action type:' and has 'Control light' selected. The second is labeled 'Start action:' and has 'Standard on' selected. The third is labeled 'Stop action:' and has 'Standard off' selected. At the bottom left are two buttons: a grey 'Cancel' button and a green 'Add action' button.

Once Add action is clicked the following screen will appeared to confirm the setup:



The screenshot shows the 'IP illuminator' control interface after the 'Add action' button was clicked. The layout is identical to the previous screenshot, but the 'Add action' buttons are now greyed out. In the 'Input from Detector (Digital input)' section, the 'Control light' label now has 'Test', 'Remove', and 'Edit' buttons. In the 'Photocell (Low light detection)' section, the 'Control light' label also has 'Test', 'Remove', and 'Edit' buttons. The green 'Add action' buttons are no longer visible.

## Event - Example 2 – Output from D-TECT IP Detector

In order to connect a D-TECT IP detector to a Clarius Plus IP via an ethernet connection the user needs to log into the D-TECT IP via your browser. Once logged in the user can add the following event:

### Add event

Name:

Input:

Delay (s):

Timeout (s):

Event activation:

Light limit (lux):

Once the user has added the event it should appear as shown below:

### D-TECT IP

**GJD**

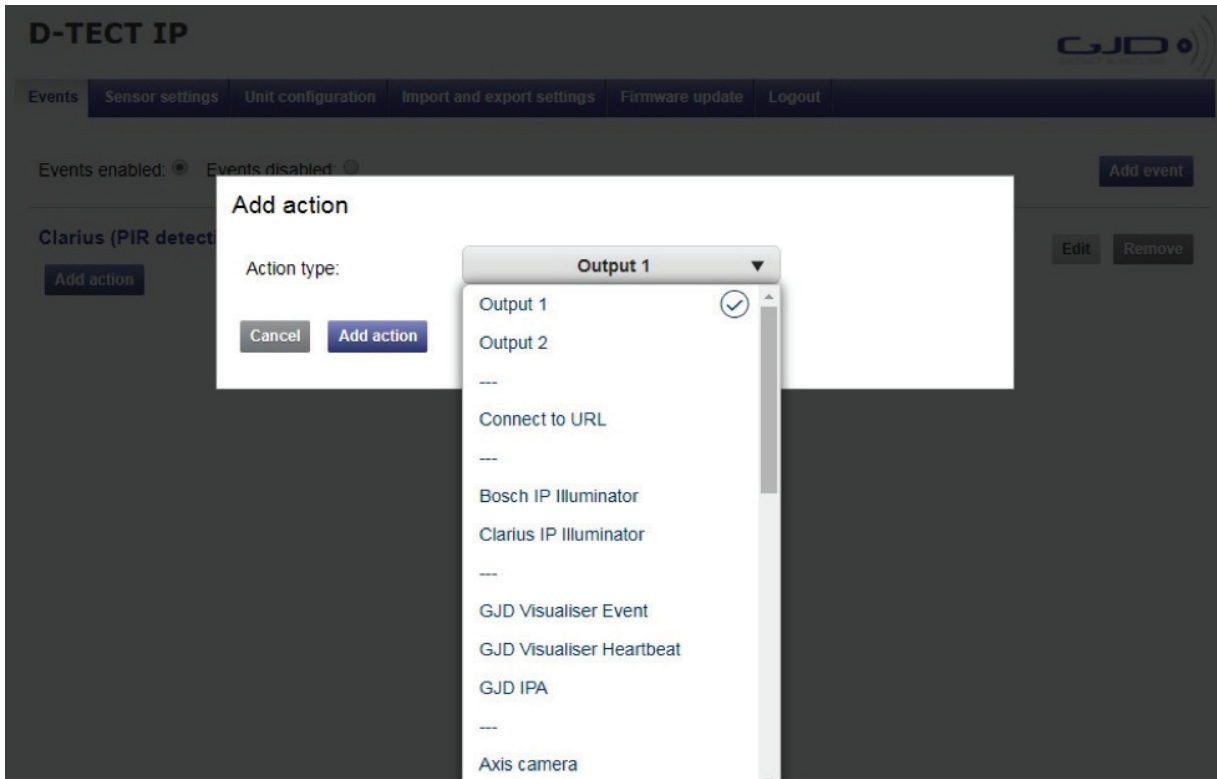
Events | **Sensor settings** | Unit configuration | Import and export settings | Firmware update | Logout

Events enabled:  Events disabled:

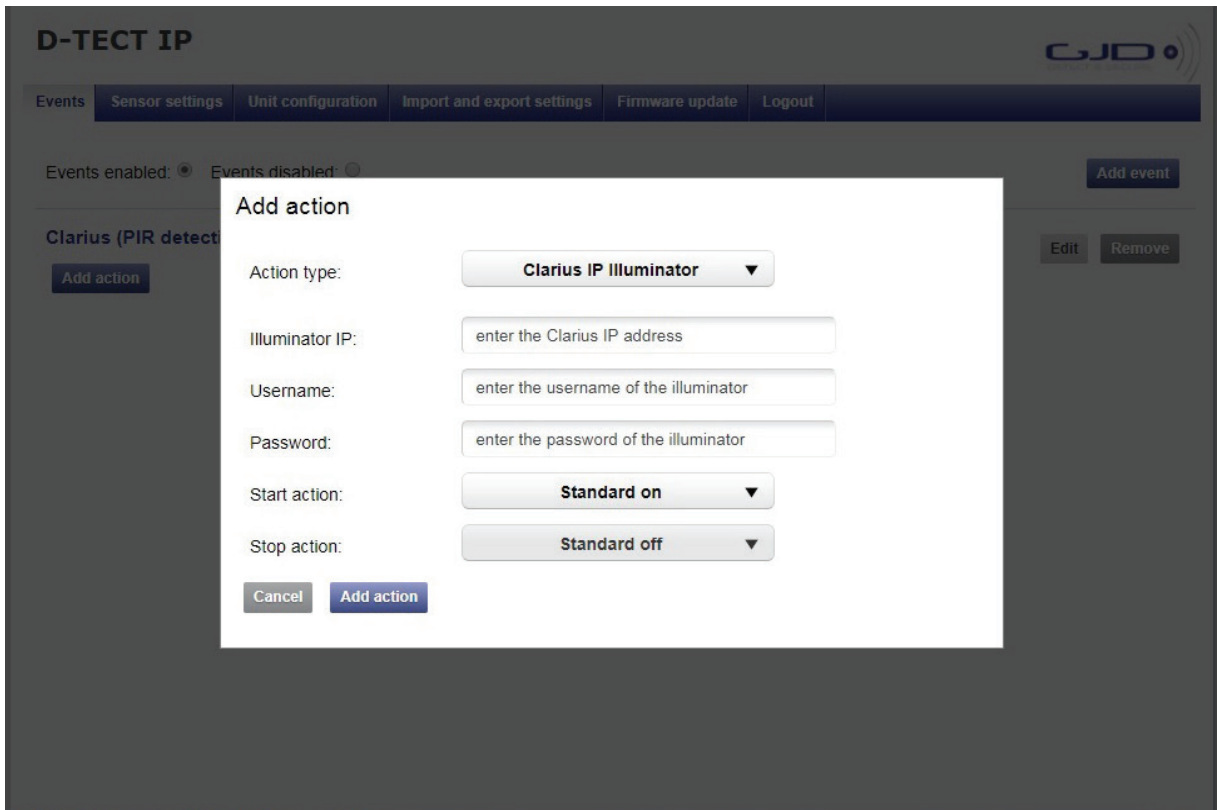
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**Clarius (PIR detection)**

The user should then select Add action, then select Clarius IP Illuminator from the drop down menu:

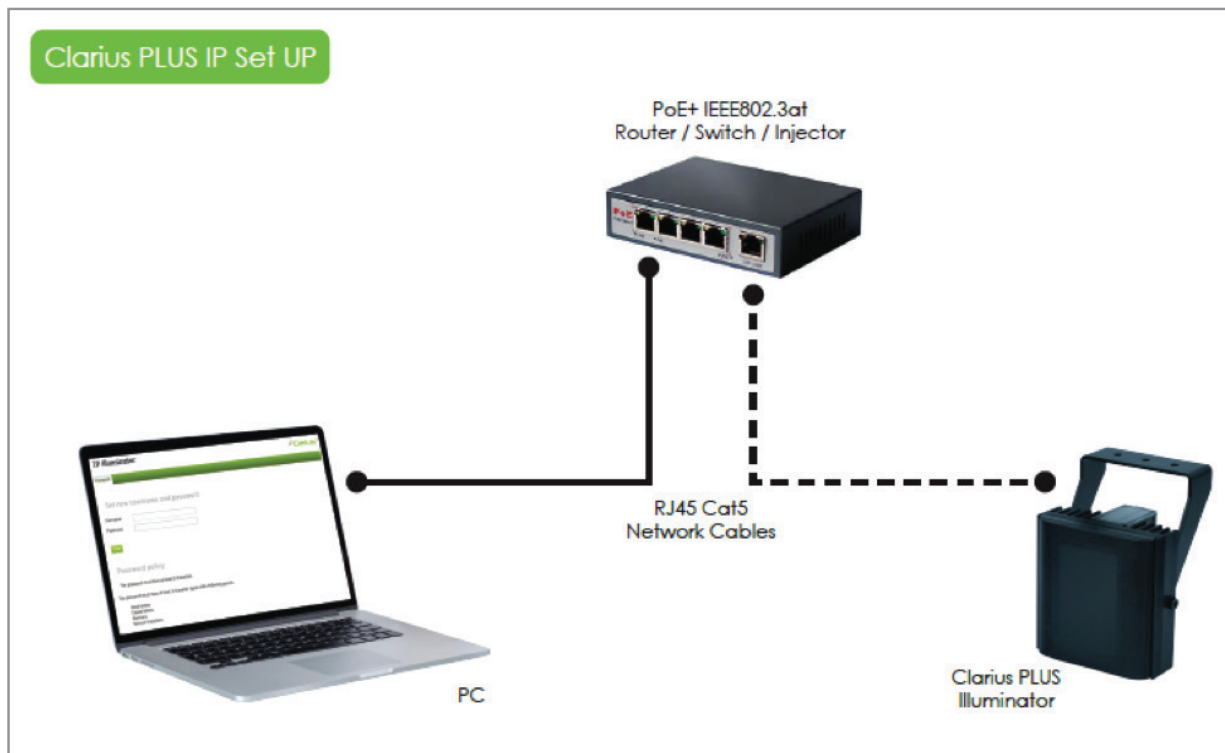


The user should then enter the IP address for the Clarius Plus IP unit, along with its username and password, then press Add action:

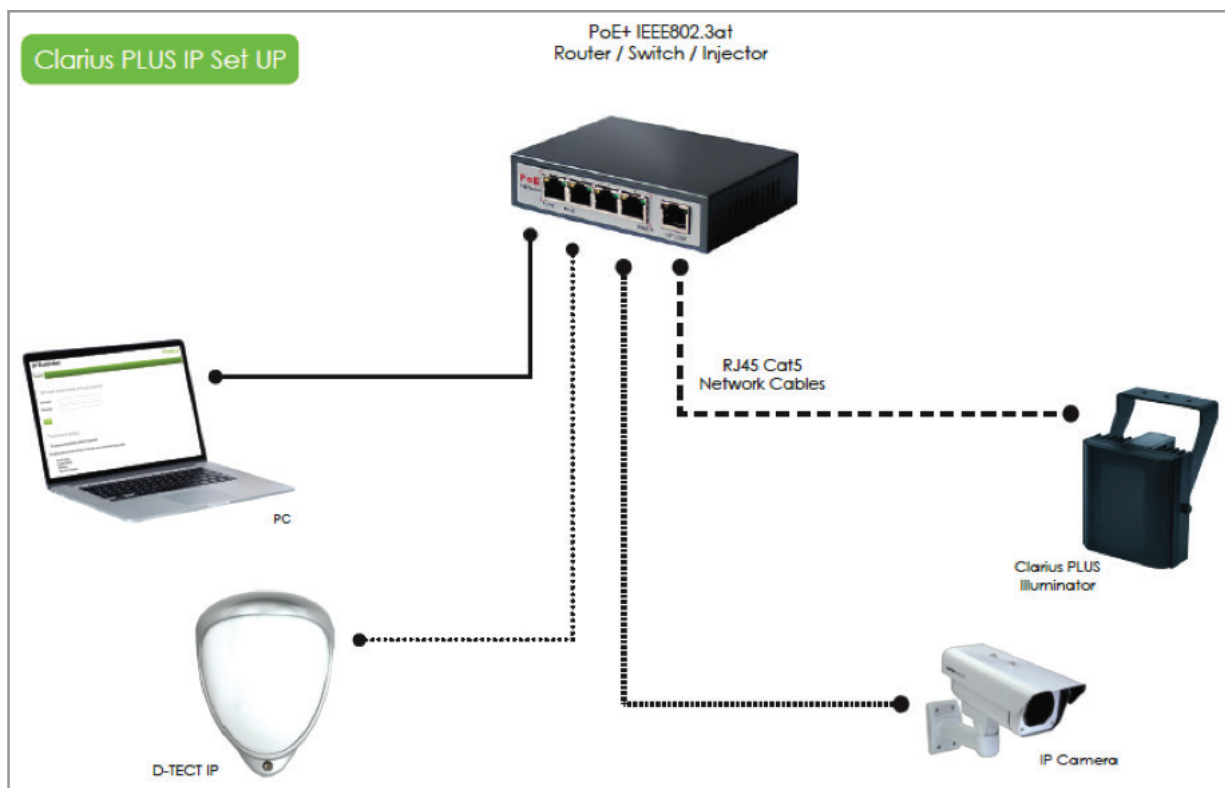


## 9. Typical Installations

The depiction below illustrates a typical setup for the Clarius Plus IP unit:



The depiction below illustrates a typical setup for the Clarius Plus IP unit, D-TECT IP detector and an IP camera:



## 10. Trouble Shooting

If you are struggling to connect to your illuminator through your browser, try typing in the first two parts of your own IP address XXX.XXX followed by .0.10:

**Product IP number:** XXX.XXX.0.10